

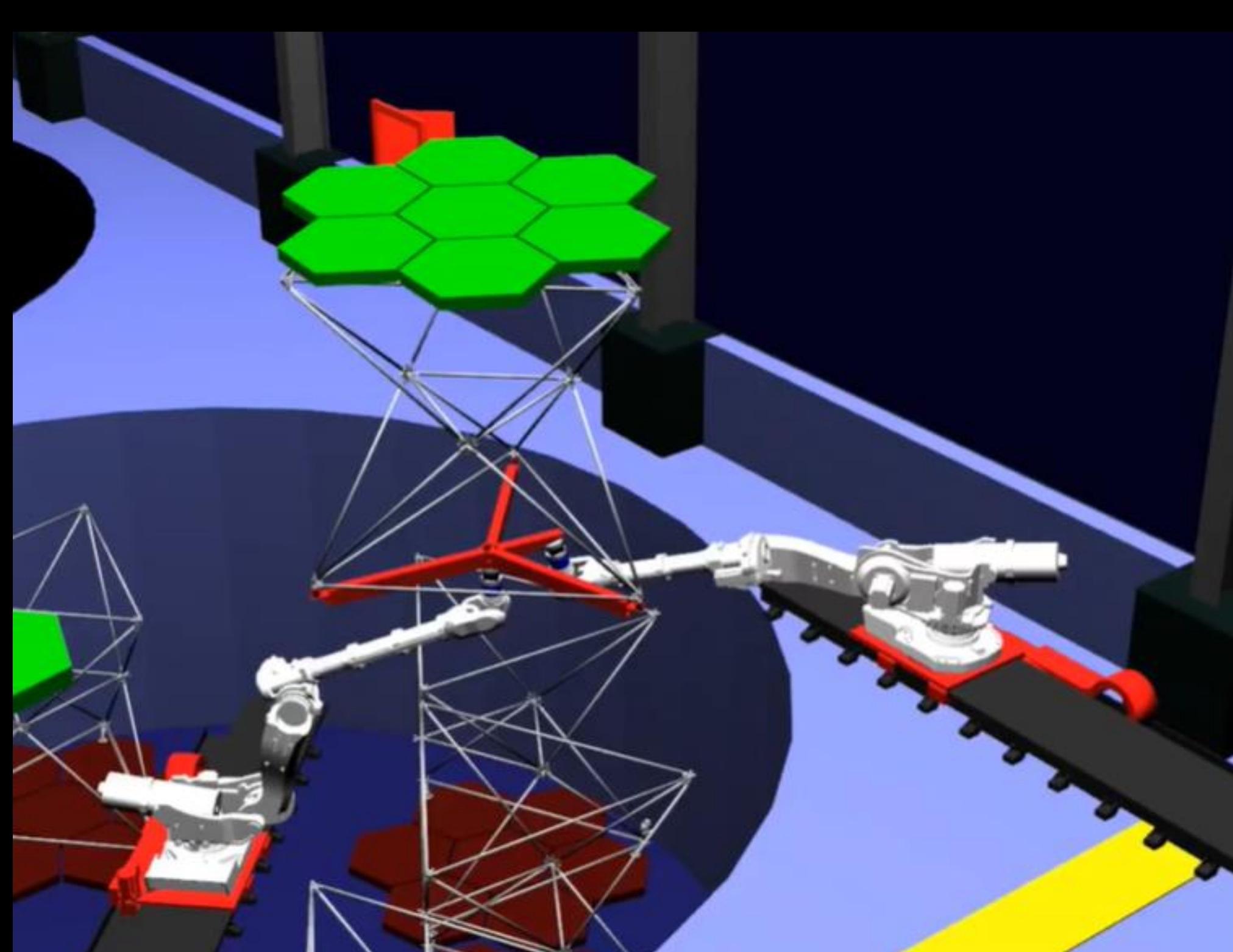
Precision Assembled Space Structure

Autonomous Systems

The Precision Assembled Space Structure (PASS) project is developing technologies to autonomously assemble large structures on-orbit

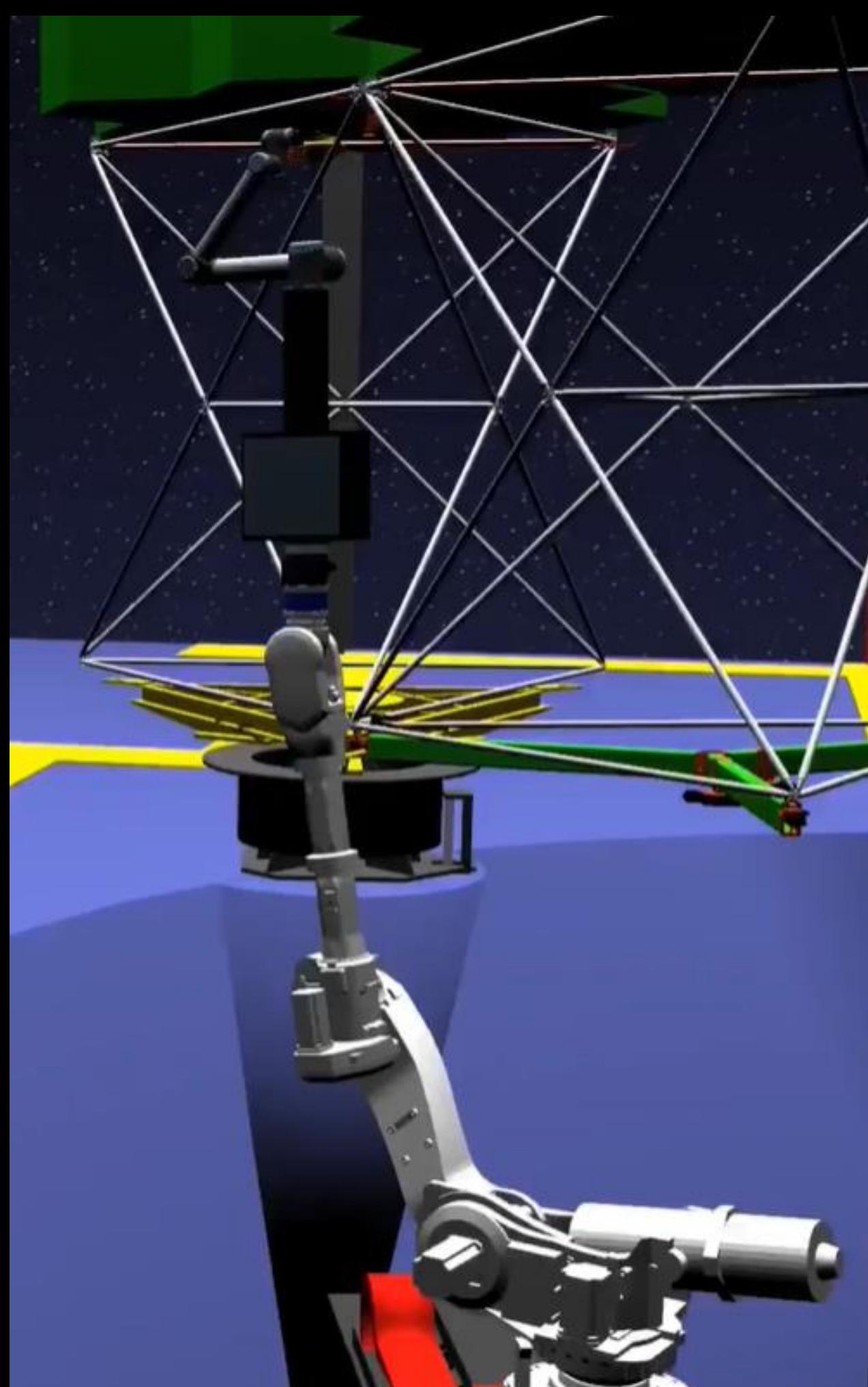
Autonomy supporting in-space assembly:

- Robot path planning and trajectory generation
- State estimation
- Mission management
- Modeling and simulation

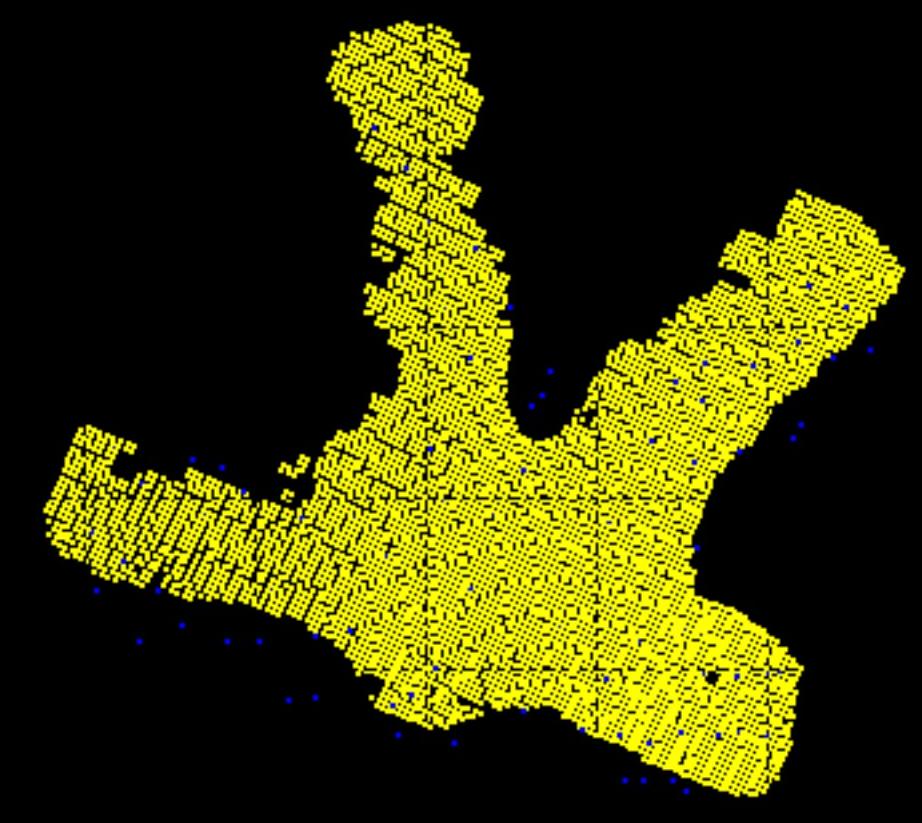
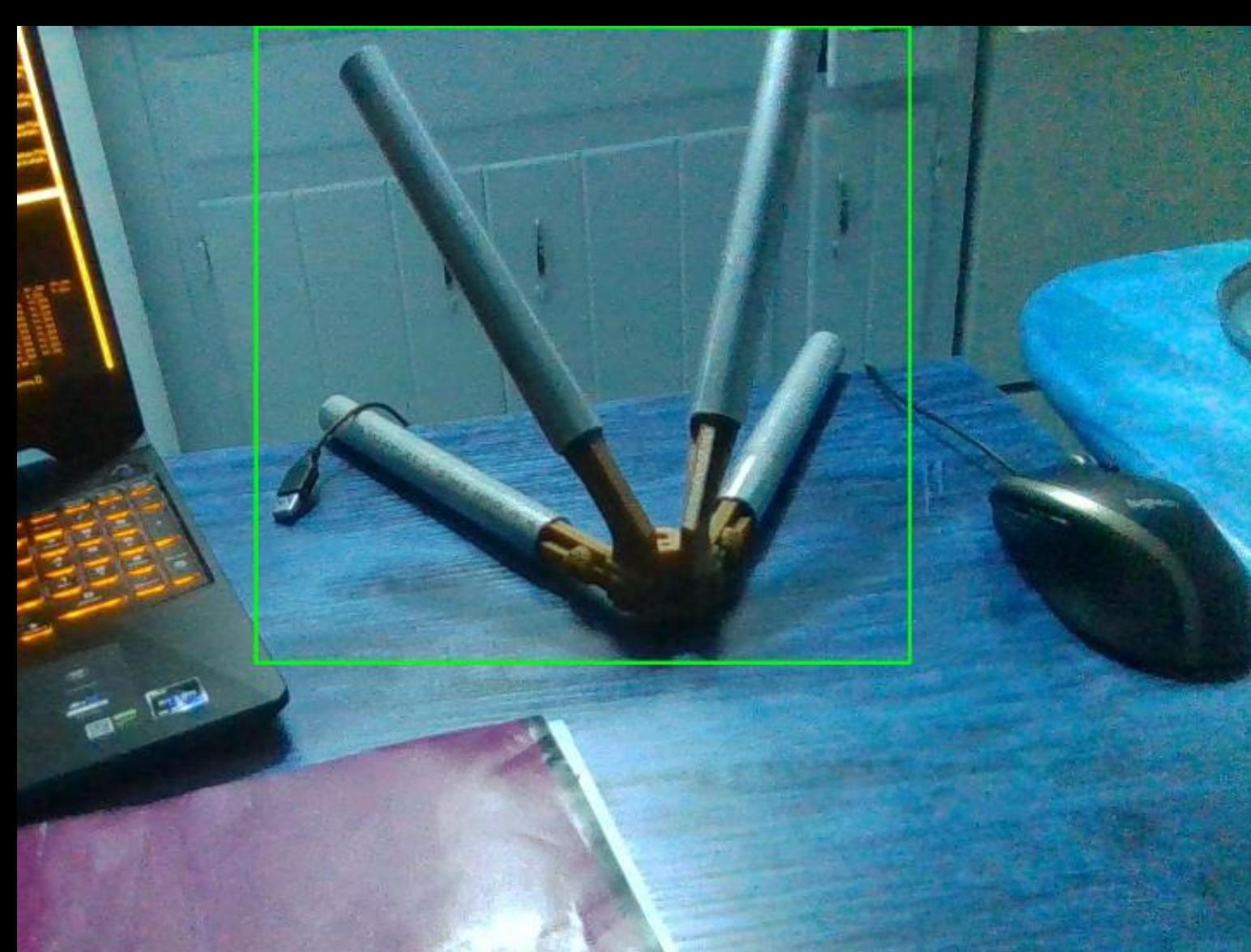


↑Payload handoff

Modular robot consisting of two manipulators→



PASS is developing multi-robot collaboration including hand-off maneuvers and modular robotic manipulators



Sensor fusion of camera images and LiDAR point clouds provides pose estimates for objects that the robots must interact with